

Notice of Allowability

Application No.

09/868,861

Examiner

Raymond S Dean

Applicant(s)

KANEMOTO ET AL.

Art Unit

2684

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to July 8, 2004.
2. ☒ The allowed claim(s) is/are 2 - 6 and 11 - 15.
3. ☒ The drawings filed on 21 June 2001 are accepted by the Examiner.
4. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date 0703, 0404
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____.
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____.

DETAILED ACTION

Allowable Subject Matter

1. The following is an examiner's statement of reasons for allowance:

Regarding Claim 12, Hamabe teaches a base station apparatus comprising: a signal to interference ratio calculator that calculates a signal to interference ratio (Column 14 lines 13 – 18); a reference value decider that decides whether the calculated signal to interference ratio is greater than a reference value or not (Column 14 lines 28 – 36); and a transmit power control information creator that creates transmit power control information to instruct either an increase or decrease of transmit power based on the decision result of the reference value decider (Column 14 lines 28 – 38).

Hamabe does not teach a signal to interference ratio calculator that calculates a signal to interference ratio using a value obtained by averaging interference signal power for several slot times; a transmit power control information creator that creates transmit power control information to instruct either an increase or decrease of transmit power based on the number of slots used to calculate the averaged interference signal power and the decision result of said reference value decider, wherein: when the number of slots used to calculate the averaged interference signal power equals or exceeds a predetermined number, the transmit power control information creator creates the transmit power control information based on the decision result of the reference value decider, and when the number of slots used to calculate the averaged interference signal power is less than the predetermined number, regardless of the

Art Unit: 2684

decision result of the reference value decider, the transmit power control information creator creates the transmit power control information so as not to allow a transmit power level to fall below a predetermined level.

Schmidl teaches a signal to interference ratio calculator that calculates a signal to interference ratio using a value obtained by averaging interference signal power for several slot times (Column 2 lines 13 – 21); a transmit power control information creator that creates transmit power control information to instruct either an increase or decrease of transmit power based on the number of slots used to calculate the averaged interference signal power and the decision result of said reference value decider (Column 2 lines 13 – 28, Column 4 lines 33 – 42, when the measured SIR is above or below the target SIR there will be a corresponding number of time slots over which said measured SIR is measured), wherein: when the number of slots used to calculate the averaged interference signal power equals or exceeds a predetermined number, the transmit power control information creator creates the transmit power control information based on the decision result of the reference value decider (Column 2 lines 13 - 28, Column 4 lines 33 – 42, when the measured SIR is above or below the target SIR there will be a corresponding number of time slots over which said measured SIR is measured) and when the number of slots used to calculate the averaged interference signal power is less than the predetermined number, the transmit power control information creator creates the transmit power control information so as not to allow a transmit power level to fall below a predetermined level (Column 2 lines 13 – 28, Column 4 lines 33 – 42, when the measured SIR is above or below the target SIR there

Art Unit: 2684

will be a corresponding number of time slots over which said measured SIR is measured).

Hamabe and Schmidl both teach a wireless system with power control that transmits and receives frames of data thus it would have been obvious to one of ordinary skill in the art at the time the invention was made to use the averaging interference power method taught by Schmidl in the power control system of Hamabe for the purpose of enabling an accurate and precise calculation of the SIR as taught by Schmidl.

The prior art of record, however, fails to specifically teach or show **when the number of slots used to calculate the averaged interference signal power is less than the predetermined number, regardless of the decision result of the reference value decider, the transmit power control information creator creates the transmit power control information so as not to allow a transmit power level to fall below a predetermined level.** Claims 2 – 6 depend on Claim 12 therefore examiner gives same reason as set forth above.

Regarding Claim 13, The prior art of record fails to specifically teach or show a **closed loop transmit power control method comprising having the base station apparatus create transmit power control information instructing an increase of transmit power until base station apparatus can correctly estimate interference signal power against a signal sent from a communication terminal apparatus with which a new radio connection has been established.** Claim 11 depends on Claim 13 therefore examiner gives same reason as set forth above.

Regarding Claim 14, The prior art of record fails to specifically teach or show a **closed loop transmit power control method comprising having the base station apparatus create transmit power control information so that a count of transmit power control information instructing an increase of transmit power created so far does not fall below a count of transmit power control information instructing a decrease of transmit power, until the base station apparatus can correctly estimate interference signal power against a signal sent from a communication terminal apparatus with which a new radio connection has been established.**

Regarding Claim 15, The prior art of record fails to specifically teach or show a **closed loop transmit power control method comprising having the base station apparatus create transmit power control information whose content is opposite to that of an immediately preceding transmit power control information, until the base station apparatus can correctly estimate interference signal power against a signal sent from a communication terminal apparatus with which a new radio connection has been established.**


Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

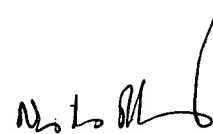
Conclusion

2. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Raymond S Dean whose telephone number is 703-305-8998. The examiner can normally be reached on 7:00-3:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nay A Maung can be reached on 703-308-7745. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Raymond S. Dean
December 7, 2004


NAY MAUNG
SUPERVISORY PATENT EXAMINER